

WE CLAIM:

1. An electrochromic layer of reversibly variable transmittance to light, comprising at least one pre-polymerized polymer, a solvent, and at least one solution based electrochromic material interspersed in the polymer matrix.

2. A method for producing an electrochromic layer of reversibly variable transmittance to light, comprising the steps of:

- (a) purify at least one monomer selected from the group consisting essentially of: methyl methacrylate; methyl acrylate; isocyanatoethyl methacrylate; isocyanatoethyl acrylate; hydroxyethylmethacrylate; hydroxyethyl acrylate; hydroxypropyl methacrylate; glycidyl methacrylate; and 4-vinylphenol;
- (b) pre-polymerize the at least one monomer to create a at least one polymer with a viscosity sufficient to allow insertion into an electrochromic device;
- (c) add at least one electrochromic material; and
- (d) crosslink the pre-polymers.